[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0703; Directorate Identifier 2013-NM-004-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes. The NPRM proposed to require repetitive inspections for discrepancies on certain AC generator mounting adapters, and replacing discrepant adapters with serviceable ones. The NPRM also proposed to require revising the maintenance program to incorporate a repetitive task specified in certain temporary revisions. The NPRM was prompted by a report of a pilot commanding an in-flight engine shut down in response to a low oil pressure warning indication. Further investigation revealed the mounting studs in the engine mounted alternating current (AC) generator mounting plate were pulled out of position and the threaded interface in the plate was corroded. This action revises the NPRM by expanding the applicability. We are proposing this supplemental NPRM (SNPRM) to detect and correct corrosion in the AC generator mounting plate, which could result in a gap between the AC generator and the generator mounting plate, and

cause loss of engine oil and consequent engine failure. Since these actions impose an additional burden over those proposed in the NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: We must receive comments on this SNPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
 - Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West
 Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC
 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601

Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2013-0703; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Assata Dessaline, Aerospace Engineer, Avionics and Services Branch, ANE-172, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7301; fax: 516-794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2013-0703; Directorate Identifier 2013-NM-004-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all

comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 series airplanes. The NPRM published in the <u>Federal Register</u> on August 28, 2013 (78 FR 53080). The NPRM was prompted by a report of a pilot commanding an in-flight engine shut down in response to a low oil pressure warning indication. Further investigation revealed the mounting studs in the engine mounted alternating current (AC) generator mounting plate were pulled out of position and the threaded interface in the plate was corroded. The NPRM proposed to require repetitive inspections for discrepancies on certain AC generator mounting adapters, and replacing discrepant adapters with serviceable ones. The NPRM also proposed to require revising the maintenance program to incorporate a repetitive task specified in certain temporary revisions.

Actions Since Previous NPRM (78 FR 53080, August 28, 2013) was Issued

Since we issued the NPRM (78 FR 53080, August 28, 2013), we have received a report that additional airplanes are affected by the identified unsafe condition. Transport

Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive, CF-2012-29R1, dated April 28, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition on certain Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes. The MCAI states:

An incident has been reported, on the DHC-8 aeroplane, where a pilot commanded in-flight engine shut down in response to an engine low oil pressure warning indication.

Further investigation revealed the mounting studs in the engine mounted alternating current (AC) generator mounting plate were pulled out of position and the threaded interface in the plate corroded. This resulted in a gap between the AC generator and the generator mounting plate, leading to the loss of engine oil and the ensuing illumination of the associated engine low oil pressure warning indication.

To ensure the integrity of the affected units, Part I of this [Canadian] AD mandates an inspection of the affected AC generator mounting adapters part numbers (P/N) 31708-500 or 31708-501, and, as applicable, replacement with new or serviceable mounting plates.

Part II of this [Canadian] AD mandates the incorporation of a repeat Maintenance Review Board (MRB) inspection applicable to the replacement of the AC generator mounting adapters P/Ns 31708-510 or 31708-511 only.

Revision 1 of this [Canadian] AD is issued to include additional aeroplane serial numbers (003 through 018) to the Applicability section, and to clarify the compliance schedules in Part I B. and Part II below.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2013-0703-0002.

Related Service Information under 1 CFR part 51

Bombardier has issued Bombardier Service Bulletin 8-24-88, Revision A, dated September 23, 2014. The service information describes repetitive inspections for discrepancies on certain AC generator mounting adapters, and replacing discrepant adapters with serviceable ones.

Bombardier has also issued the following service information, which describes maintenance review board (MRB) task 2420/14 (functional check of the AC generator adapter kit):

- de Havilland Dash 8 Series 100 Temporary Revision MRB-153, dated
 July 10, 2012, to Part 1 Section 2–Systems, of the de Havilland Dash 8 Series 100
 Maintenance Program Manual PSM 1-8-7 MRB Report.
- de Havilland Dash 8 Series 200 Temporary Revision MRB 2-31, dated
 July 10, 2012, to Part 1 Section 2–Systems of the de Havilland Dash 8 Series 200
 Maintenance Program Manual PSM 1-82-7 MRB Report.
- de Havilland Dash 8 Series 300 Temporary Revision MRB 3-162, dated
 July 10, 2012, to Part 1 Section 2–Systems of the de Havilland Dash 8 Series 300
 Maintenance Program Manual PSM 1-83-7 MRB Report.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Comments

We gave the public the opportunity to participate in developing this proposed AD. We received no comments on the NPRM (78 FR 53080, August 28, 2013) or on the determination of the cost to the public.

FAA's Determination and Requirements of this SNPRM

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Certain changes described above expand the scope of the NPRM (78 FR 53080, August 28, 2013). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Costs of Compliance

We estimate that this proposed AD affects 88 airplanes of U.S. registry.

We also estimate that it would take about 6 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$4,000 per product. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$396,880, or \$4,510 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
 - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Bombardier, Inc.: Docket No. FAA-2013-0703; Directorate Identifier 2013-NM-004-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes; certificated in any category; serial numbers 003 through 672 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 24, Electrical power.

(e) Reason

This AD was prompted by a report of a pilot commanding an in-flight engine shut down in response to a low oil pressure warning indication. Further investigation revealed the mounting studs in the engine mounted alternating current (AC) generator mounting plate were pulled out of position and the threaded interface in the plate corroded. We are issuing this AD to detect and correct corrosion in the AC generator mounting plate, which could result in a gap between the AC generator and the generator mounting plate, and cause loss of engine oil and consequent engine failure.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection of AC Generator Mounting Adaptor and Corrective Action

Within 6,000 flight hours, or 36 months, or when the AC generator is removed for service, whichever occurs first, after the effective date of this AD: Do a general visual inspection and a mechanical inspection for discrepancies (i.e., damage, corrosion, and

failed mechanical inspection) on AC generator mounting adapters having P/N 31708-500 and P/N 31708-501, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-24-88, Revision A, dated September 23, 2014. If any discrepancy (i.e., damage, corrosion, or failed mechanical inspection) is found, before further flight, replace the AC generator mounting adapter with a serviceable mounting adapter having P/N 31708-510, P/N 31708-511, P/N 31708-500, or 31708-501, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-24-88, Revision A, dated September 23, 2014.

(h) Repetitive Inspections

For in-service mounting adapters that have P/N 31708-500 or P/N 31708-501: Repeat the general visual and mechanical inspection required by paragraph (g) of this AD thereafter at intervals not to exceed 6,000 flight hours, or 36 months after the most recent inspection, or when the AC generator is removed for service, whichever occurs first.

(i) Replacement of Certain AC Generator Mounting Adaptors

For airplanes having AC generator mounting adapters that have P/N 31708-500 or 31708-501: Within the later of the times specified in paragraphs (i)(1) and (i)(2) of this AD, replace the AC generator mounting adapter with a new AC generator mounting adapter having P/N 31708-510 or 31708-511.

- (1) Before the accumulation of 120 months on the AC generator mounting adapter.
- (2) Within 12 months, or 2,000 flight hours, or when the generator is removed from service, whichever occurs first after the effective date of this AD.

(j) Airplane Maintenance Program Revision

For airplanes having AC generator mounting adapters that have P/N 31708-510 or 31708-511: Within 30 days after the effective date of this AD, revise the airplane maintenance or inspection program, as applicable, by incorporating maintenance review board (MRB) Task 2420/14 in the applicable maintenance program manual specified in paragraph (j)(1), (j)(2), or (j)(3) of this AD. The initial compliance time for MRB Task 2420/14 is prior to the accumulation of 10,000 total flight hours or within 60 months since installation of the part, whichever occurs first.

- (1) For Model DHC-8-102, -103, and -106 airplanes: de Havilland Dash 8 Series 100 Temporary Revision MRB-153, dated July 10, 2012, Part 1 Section 2–Systems, of the de Havilland Dash 8 Series 100 Maintenance Program Manual PSM 1-8-7 MRB Report.
- (2) For Model DHC-8-201 and -202 airplanes: de Havilland Dash 8 Series 200 Temporary Revision MRB 2-31, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 200 Maintenance Program Manual PSM 1-82-7 MRB Report.
- (3) For Model DHC-8-301, -311, and -315 airplanes: de Havilland Dash 8 Series 300 Temporary Revision MRB 3-162, dated July 10, 2012, Part 1 Section 2–Systems of the de Havilland Dash 8 Series 300 Maintenance Program Manual PSM 1-83-7 MRB Report.

(k) No Alternative Actions or Intervals

After the maintenance or inspection program has been revised as required by paragraph (j) of this AD, no alternative actions (e.g., inspections) or intervals may be

used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (m)(1) of this AD.

(l) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 8-24-88, dated December 13, 2011.

(m) Other FAA AD Provisions

The following provisions also apply to this AD:

- (1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; fax: 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.
- (2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate,

FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design

Approval Organization (DAO). If approved by the DAO, the approval must include the

DAO-authorized signature.

(n) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian

AD CF-2012-29R1, dated April 28, 2015, for related information. This MCAI may be

found in the AD docket on the Internet at

http://www.regulations.gov/#!documentDetail;D=FAA-2013-0703-0002.

(2) For service information identified in this AD, contact Bombardier, Inc.,

Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5,

Canada; telephone: 416-375-4000; fax: 416-375-4539; email:

thd.qseries@aero.bombardier.com; Internet http://www.bombardier.com. You may view

this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue

SW., Renton, WA. For information on the availability of this material at the FAA, call

425-227-1221.

Issued in Renton, Washington, on December 31, 2015.

Phil Forde,

Acting Manager,

Transport Airplane Directorate,

Aircraft Certification Service.

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